Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) An inspection system for coiled tubing being employed in a well, the system comprising:

an imaging device recording video signals of a segment of the coiled tubing as the coiled tubing is being injected into or removed from the well;

a conductor transmitting the video signals to a processor;

an image grabber generating ~~an image~~ images of the tubing segment from the video signals; and

a program in the processor analyzing ~~the image~~ each image separately to detect ~~predetermined features~~ discrete anomalies of the tubing segment.

2. (original) The system of claim 1 further including means for generating longitudinal coordinates of the tubing segment.

3. (original) The system of claim 2 wherein the longitudinal coordinates of the tubing are stamped on the image of the tubing segment.

4. (original) The system of claim 1 wherein the video signals have a minimum resolution of 640 X 480 pixels with an 8 bit per pixel color or grayscale depth.

5. (original) The system of claim 1 further including a video stacker stacking the images.

6. (currently amended) The system of claim 1 wherein the processor is programmed to recognize and classify the ~~predetermined features~~ discrete anomalies on the tubing segment shown in the ~~image~~ images.

7. (currently amended) The system of claim 1 wherein the ~~predetermined features~~ discrete anomalies include one or more of the following: wear, cracks, patterns, abrasions, color, discolorations, or dimensions.

8. (currently amended) The system of claim 1 wherein the ~~predetermined features include~~ program in the processor analyzes the images to detect the diameter of the tubing.

9. (currently amended) The system of claim 1 wherein the processor generates a signal upon detecting a ~~predetermined feature~~ discrete anomaly in the tubing so as to provide a warning of such ~~predetermined feature~~ discrete anomaly.

10. (cancelled) A tubing for use with an automated defect inspection system comprising:

an outer wear layer; and

a contrasting layer beneath the wear layer;

wherein if the outer wear layer is worn away, the contrasting layer becomes visible as a contrasting feature on the tubing.

11. (cancelled) The tubing of claim 10, further comprising at least one stripe located on the outer wear layer and parallel to the longitudinal axis of the tubing.

12. (cancelled) The tubing of claim 11, wherein if more than one stripe is located on the outer wear layer, the stripes are individually distinguishable.

13. (previously presented) An inspection system comprising:

a composite coiled tubing having layers of fibers forming a tubing wall, the outermost layer having a longitudinal stripe;

an imaging device recording video signals of a segment of the coiled tubing as the coiled tubing is presented before the imaging device;

a processor receiving the video signals from the imaging device; and

a program in the processor analyzing the video signals to detect the stripe on the tubing segment.

14. (original) The system of claim 13 wherein the tubing has at least one outer layer having a predetermined color and the program analyzes the video signals to detect the predetermined color on the tubing segment.

15. (currently amended) An automated inspection system for identifying defects in coiled tubing, comprising:

a plurality of imaging devices configured to capture video images of coiled tubing as the tubing passes in front of the imaging devices; and

a computer system configured to execute pattern recognition software to analyze ~~the images~~ each image separately, extract ~~features~~ discrete anomalies from ~~the images~~ each image, and generate an indication if a ~~defect~~ discrete anomaly is identified as a defect in ~~the images~~ an image.

16. (original) The inspection system of claim 15 wherein the imaging devices are fiber-optic imaging devices.

17. (original) The inspection system of claim 15 wherein the plurality of imaging devices consist of three CCD cameras.

18. (original) The inspection system of claim 15 further comprising:

a counter signal identifying a location along the coiled tubing; and

the computer system reading the counter signal to identify the location along the coiled tubing at which a defect is located.

19. (original) The inspection system of claim 18 wherein if the counter signal indicates that the coiled tubing is not moving or moving slower than a threshold, the inspection system is disabled.

20. (previously presented) The inspection system of claim 18 wherein if the counter signal indicates that the coiled tubing is moving faster than a threshold, the inspection system is enabled.

21. (original) The inspection system of claim 18 further comprising a video stacker configured to correlate video images taken from the plurality of imaging devices with one another as well as with a longitudinal position along the coiled tubing using the counter signal.

22. (original) The inspection system of claim 15 wherein the video images are transmitted to the computer system for real time identification of defects.

23. (original) The inspection system of claim 15 further comprising a video recorder configured to store the video images from the plurality of imaging devices for later defect identification.

24. (currently amended) The inspection system of claim 15 wherein the coiled tubing comprises at least one longitudinal stripe on the outer surface of the tubing as a reference for the purpose of identifying the annular location of a ~~feature~~ discrete anomaly on the tubing.

25. (original) The inspection system of claim 15 wherein the pattern recognition software further measures the outside diameter of the tubing and generates an indication if the diameter is outside a user-designated tolerance range.

26. (currently amended) A computer system for use in an automated tubing inspection system comprising:

a processor;

at least one output device producing video signals of the tubing surface;

an input device configured to receive the video signals and generate sequential images of the tubing surface from the video input;

a pattern classification software program configured to read ~~the images~~ each image separately and extract ~~features~~ discrete anomalies of the tubing from the images and compare the size of these ~~features~~ discrete anomalies against user-defined thresholds;

wherein if the pattern classification software determines that the size of the ~~features~~ discrete anomalies does not fall within the user-defined threshold, the software generates an interrupt indicating that a defect has been located.

27. (previously presented) The computer system of claim 26 further comprising:

an input for receiving location data indicating the position from which the incoming images are taken;

wherein when the pattern classification software generates the warning interrupt, the computer system transmits the image containing the defect and the corresponding location data to the output device.

28. (previously presented) The computer system of claim 27 wherein the output device is a printer.

29. (previously presented) The computer system of claim 27 wherein the output device is a monitor.

30. (currently amended) The computer system of claim 27 wherein the pattern classification software may be trained to recognized unwanted defects and ignore innocuous ~~features~~ discrete anomalies.

31. (currently amended) A method of identifying ~~defects~~ discrete anomalies in a continuous length of coiled tubing, comprising:

passing the continuous length of coiled tubing in front of a plurality of imaging devices;

capturing images of the outer circumference of the tubing with the imaging devices and transmitting the images to a processor;

receiving the images by the processor and inputting the images to computer vision software running on the processor; and

processing ~~the images~~ each image separately on the computer vision software; and

identifying predetermined ~~features~~ discrete anomalies in the tubing in each image.

32. (currently amended) The method of claim 31 further including initiating a warning event upon detecting a ~~defect~~ discrete anomaly in the tubing.

33. (previously presented) The method of claim 31 wherein the passing step includes guiding the coiled tubing through a guide roller mechanism as the tubing is spooled on or off a storage reel and placing the aperture of a plurality of imaging devices in close proximity to the guide roller mechanism.

34. (currently amended) The method of claim 31, further comprising:

transmitting a depth counter value the processor to identify the position along the tubing at which the images are taken; and

displaying the image of the ~~features~~ discrete anomalies.

35. (currently amended) The method of claim 34 further including indicating the position of ~~a defect~~ the discrete anomalies in the tubing.

36. (currently amended) The method of claim 31, further comprising:

specifying the annular location of a ~~predetermined feature~~ discrete anomaly with respect to an annular reference established by at least one longitudinal stripe located on the outer diameter of the tubing; and

indicating the annular position of the ~~predetermined features~~ discrete anomaly.

37. (previously presented) The method of claim 31, further comprising transmitting power to operate the imaging devices and transmitting light to illuminate the tubing.

38. (previously presented) The method of claim 31, wherein the imaging devices are located on a levelwind that is coupled to a reel on which the tubing is coiled.

39. (previously presented) The method of claim 31, further comprising storing the images on recordable media prior to processing the images.

40. (previously presented) The method of claim 39, further comprising storing the images with the depth counter value.

41. (currently amended) The method of claim 31, further comprising identifying a ~~feature~~ discrete anomaly as a defect by determining if the size of ~~an unrecognized feature~~ the discrete anomaly exceeds a user-designated threshold.

42. (currently amended) The method of claim 31, further comprising identifying a ~~feature~~ discrete anomaly as a defect by determining if the size of a previously recognized ~~feature~~ discrete anomaly has grown beyond a user-designated percentage of its original size.

43. (previously presented) The system of claim 1 wherein the coiled tubing comprises an outer wear layer and a contrasting layer beneath the outer wear layer where if the outer wear layer is worn away, the contrasting layer becomes visible as a contrasting feature on the tubing.

44. (previously presented) The system of claim 43 wherein the coiled tubing further comprises a stripe located on the outer wear layer and parallel to the longitudinal axis of the tubing.

45. (previously presented) The system of claim 44 wherein the coiled tubing comprises more than one stripe located on the outer wear layer and wherein the stripes are individually distinguishable.